IN THE SPECIFICATION:

Please enter the following amendments to the specification in place of the amendments set forth at pages 2 through 8 of the amendment submitted May 23, 2003.

Amend the seventh full paragraph (lines 19 through 23) on page 3 as follows:

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said catalyst contains at least one <u>element</u> type selected from alkaline metal and alkaline earth metal, Rh, Pt, and a CO absorbent component where the absolute value (ΔH) of Co adsorbent enthalpy on the metal single crystal (111) surface is 142 KJ/mol or more;

Amend the second full paragraph (lines 8 through 12) on page 4 as follows:



3. An exhaust gas cleaning method for internal combustion engine characterized in that said catalyst contains at least one type element selected from Ti, Si and Zr, and includes a composite oxide comprising said type(s) and at least one type element selected from Na, Mg, K, Li, Cs, Sr and Ca.

Amend the fifth full paragraph (lines 17 through 23) on page 4 as follows:

said exhaust gas cleaning method for internal combustion engine being characterized in that said catalyst contains at least one type element of alkaline metal or alkaline earth metal selected from Na, Mg, K, Li, Cs, Sr and Ca on the surface of a porous carrier, Rh, Pt, at least one type element selected from Zr and Ti and Si, and at least one type element selected from Pd, Ir and Ru;

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Amend the second, third and fourth full paragraphs (lines 8 through 27) on page 5 as follows:

7. An exhaust gas cleaning catalyst for internal combustion engine which comprises at least one type element selected from alkaline metal or alkaline earth metal, Rh, Pt and the CO adsorbent component where the absolute value (ΔH) of Co adsorbent enthalpy on the metal single crystal (111) surface is 142 KU/mol or more, and where the CO desorption temperature reaches the maximum level within the temperature range from 200 to 220°C in the event of temperature rise in He gas flow at the rate of 5 to 10°C/min. after adsorption of CO to said catalyst by saturation at 100°C.



8. An exhaust gas cleaning catalyst for internal combustion engine wherein said CO adsorbent compound comprises at least one type element selected from Na, Mg, K, Li, Cs, Sr and Ca, and contains a composite oxide comprising said element(s) and at least one type element selected from Zr and Ti and Si.

Amend the second and third full paragraphs (lines 3 through 17) on page 6 as follows:

11. An exhaust gas cleaning catalyst for internal combustion engine which has on the surface of a porous carrier at least one type element selected from alkaline metal and alkaline earth metal, Rh, Pt, at least one type element selected from Ti, Si and Zr, and at least one type element selected from Pd, Ir and Ru; wherein said alkaline metal or alkaline earth metal comprises at least one type element selected from Na, Mg, K, Li, Cs, Sr and Ca;



the ratios of components relative to 100 parts by weight of said porous carrier are 5 to 30 pts. wt. for alkaline metal or alkaline earth metal in total, 8 to 35 100 pts. wt. for Ti, 3 to 25 pts. wt. for Si, 3 to 25 pts. wt. for Zr, 0.05 to 0.5 pts. wt. for Rh, 1.5 to 5 pts wt. for Pt, and 0.25 to 3 pts. wt. for at least one type element selected from Pd, Ir and Ru in total.

Amend the first, second and third full paragraphs (lines 5 through 24) on page 7 as follows:

said exhaust gas cleaning device further characterized in that said exhaust gas cleaning catalyst contains at least one type element selected from alkaline metal and alkaline earth metal, Rh, Pt, and CO adsorbent component wherein the absolute value (AH) of CO adsorbent enthalpy on the metal single crystal (111) surface is 142 KJ/mol or more, and where the CO desorption



temperature reaches the maximum level within the temperature range from 200 to 220°C in the event of temperature rise in He gas flow at the rate of 5 to 10°C/min. after adsorption of Co to said catalyst by saturation at 100°C.

14. An exhaust gas cleaning device for internal combustion engine wherein said CO adsorbent component comprises at least one type element selected from Pd, Ir and Ru.



Ti and Si.

An exhaust gas cleaning device for internal combustion engine wherein said alkaline metal or alkaline earth metal comprises at least one type element selected from Na, Mg, K, Li, Cs, Sr and Ca, and contains a composite oxide comprising said element(s) and at least one type element selected from Zr and Ti and Si.

Amend the second and third full paragraphs (lines 9 through 21) on page 8 as follows:

wherein said catalyst further contains on the surface of a porous carrier at least one type element selected from alkaline metal and alkaline earth metal, Rh, Pt, at least one type element selected from Ti, Si and Zr, and and at least one type element selected from Rh, Pt and Ru;



said exhaust gads cleaning device further characterized in that the ratios of components relative to 100 parts by weight of said porous carrier are 5 to 30

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pts. wt. for alkaline metal or alkaline earth metal in total, 8 to 35 100 pts. wt. for Ti, 3 to 25 pts. wt. for Si, 3 to 25 pts. wt. for Zr, 0.05 to 0.5 pts. wt. for Rh, 1.5 to 5 pts. wt. for Pt, and 0.25 to 3 pts. wt. for at least one type element selected from Pd, Ir and Ru in total;

Amend the second full paragraph (lines 7 through 21) on page 9 as follows:

According to the present invention, alkaline metal or alkaline earth metal causes New NOx to be captured on the catalyst surface in the oxidation atmosphere. Then, a composite oxide comprising said alkaline metal, alkaline earth metal, and at least one type element selected from Ti, Zr and Si, or makes it possible to capture NOx in the oxidation atmosphere is firmly eaptured on the catalyst surface. Pt and Rh serve as an NOx reducing agent. They removes remove by reduction the NOx remaining captured onto the NOx capturing compound surface in the oxidation atmosphere by means of the reducing agent such ad HC, CO and H2 coexisting in exhaust gas in the reduction atmosphere. The CO adsorbent compound acts to remove by reduction the SOx captured by the capturing compound, using the reducing agent such as CO, HC and H2 contained in the exhaust gas of reduction atmosphere.



Amend the first paragraph on page 12 as follows:

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As can bee be seen from the above discussion, the present invention aims at achieving at effective removal of the captured SOx, using such reducing agents as HC, CO and H₂ in the reduction atmosphere of about 500°C.

Please amend the paragraph bridging pages 18 and 19 as follows:

Figure 2 shows an example of the engine system equipped with exhaust gads cleaning device. The engine 99 of the present embodiment is designed as a cylinder internal jet type. Said engine is supplied with air fed through air cleaner 1 and fuel jetted from the injector 5 fed from the fuel tank 13. Air flow path is provided with an air flow sensor 2 and throttle valve 3, and the fuel flow path is equipped with a fuel pump 12. An exhaust gas cleaning catalyst 18 corresponding to the exhaust gas cleaning device of the present invention is placed in the exhaust gas flow path. An air-fuel ratio sensor 19 and exhaust gas temperature sensor 21 are installed on the upstream side of the exhaust gas clean catalyst 18. A temperature sensor 22 to measure the catalyst outlet temperature is mounted on the downstream side. Various pieces of information required for engine operations are fed to the engine control unit 25. In the present embodiment, the signals from the air flow sensor 2, throttle valve 3, load sensor 8 to measure the ratio of depressing the acceleration pedal 7, air-fuel ratio sensor 19, temperature sensors 21 and 22, water temperature sensor 28 to measure the engine water temperature and crank angle sensor 29 are sent to the engine control unit 25. Numeral 9 in Figure 2 denotes a piston, and 26 shows a

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knock sensor. The injector 5 and firing plug 6 are controlled by signals from the engine control unit 25.

Page 31, Table 6, last row, delete the heading type over "(Embodiment 4)" and insert the same heading "(Embodiment 4)" at the top of page 32 before line 1.

Page 35, insert the following paragraph after line 6.

The foregoing disclosure has been set forth merely to illustrate the invention and is not intended to be limiting. Since modifications of the disclosed embodiments incorporating the spirit and substance of the invention may occur to persons skilled in the art, the invention should be construed to include everything within the scope of the appended claims and equivalents thereof.

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